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EXAMINER
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ART UNIT	PAPER NUMBER
3624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/674,706	BRISCO ET AL
	Examiner	Art Unit
	Ella Colbert	3624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 March 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-25,30,32,33 and 39-47* is/are pending in the application.

    4a) Of the above claim(s) <u>47</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 4-25, 30, 32, 33, and 39-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 7-05)   Office Action Summary   Part of Paper No./Mail Date 20060610

DETAILED ACTION

1.   Claims 1, 4-25, 30, 32, 33, and 39-47 are pending. Claims 1, 10, 16, 19, and 30

have been amended and claims 40-47 have been added in the communication of

05/24/05 and a Response to an Election/Restriction and Request for Extension of Time

was filed 11/29/05 and a Response to the Miscellaneous Communication (Response

After Non-Final Action) filed 3/22/06 have been entered.

2.   Applicants' argument regarding examining claim 46 with Group I, claims 1, 4-25,

30, 32, 33, and 39-45 is convincing. Therefore, claim 46 will be examined with Group I.

However, claim 47, Group II is directed to operating a communications network with

sub-networks operated by a different network operator. None of the claim limitations in

independent claims 1 and 46 in Group I, have the establishment of a data flow from an

originating customer connected to a first sub-network, the communication of tariff data

from the first and second network operators to a clearing entity, communicating the tariff

data fro end-to-end entity flow from the clearing entity, measuring the quantity of data to

the clearing entity, the clearing entity performing a calculating charge(s) from the

measurement of the tariff data, or communicating a bill according to the end-to-end tariff

from the clearing entity. Therefore, claim 47 will not be examined with Group I for the

reasons above.

3.   The Specification objection has been overcome by Applicants' amendment to the

Specification and is hereby withdrawn.

4.   The objection to the Abstract has been overcome by Applicants' amendment to

the Abstract.

5.   The drawing objection has been overcome by Applicants' submission of replacement drawings and is hereby with drawn.

6.   The claim objections for claims 16 and 30 have been overcome by Applicants' amendments to claims 16 and 30 and is hereby with drawn. However, there are still remaining claim rejections for other claims as set forth here below.

7.   The 35 USC 112 second rejection for claims 1(c), 18, 19, 22, 24, and 29 are hereby withdrawn. The 35 USC 112 second paragraph rejection still remains for claim 8. However, there are still 35 USC 112 second paragraph rejections for other claims as set forth here below.

Claim Objections

9.   Claims 1 (b), 14, and 46 (b) are objected to because of the following informalities: Claim 1 (b) reads "subsequently calculating ...". This claim would be better read "calculating ...". Claim 46 (b) has a similar problem. Claim 14 reads "... tariff and from accounting data the ...". This claim limitation would be better read "... tariff and from the accounting data the ...". Appropriate correction is required.

Claim Rejections - 35 USC § 112

10.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11.   Claims 17 and 46 (c) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 17 reads " ... identity of a second domain, which second domain is communicating data with the customer". This claim

limitation is very confusing and unclear. It is not understood what Applicants' are trying

to claim in this claim limitation. If the "which" after "domain" were changed to other

wording, the claim limitation would become better understood. Claim 46 (c) has a

similar problem. Clarification in the claim language is requested.

Claim Rejections - 35 USC § 102

12.   (e) the invention was described in a patent granted on an application for patent by another filed in the
United States before the invention thereof by the applicant for patent, or on an international application
by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this
title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

13.   Claims 1-6 and 46 are rejected under 35 U.S.C. 102(a) as being anticipated by

(US 6,035,281) Crosskey et al, hereafter Crosskey.

As per claims 1 and 46, Crosskey teaches, A method of operating a

communications network comprising: a) measuring at each of a plurality of customer

terminals usage by the respective customer terminal of network resources (col. 2, lines

19-51);

b)   subsequently calculating a network usage charge from the measurement data

generated by step (a) (col. 6, line 18-col. 17, line 14 and col. 8, lines 48-65); and c)

sampling usage of the network resources by at least one of the customer terminals by

measuring a portion of the usage only by the at least one of the customer terminals by

performing (col. 9, lines 1-16); (i) measuring a portion of the usage only by the at least

one of the customer terminals (col. 3, lines 4-14); comparing this measurement in step

(c) (i), with respect to the sampled usage, with one or both of the usage of network

resources measured by the at least one customer terminal in step (a) and the network

usage charge calculated in step (b) (col. 2, lines 8-51).

As per claim 4, Crosskey teaches, A method according to claim I, further

comprising a step of aggregating measurement data produced by a series of

measurements at a respective customer terminal (col. 9, line 1-col. 10, line 40).

As per claim 5, Crosskey teaches, A method according to claim I, further

comprising storing the measurement data (col. 10, lines 7-25).

As per claim 6, Crosskey teaches, A method according to claim 5, including

storing with the measurement data identifying a tariff applicable to the said

measurement data (col. 11, lines 6-48).

Claim Rejections - 35 USC § 103

14.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15.   Claims 7-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 6,035,281) Crosskey et al, hereafter Crosskey in view of Dr. Gregory Ruth and Cyndi Mills, hereafter Ruth and Mills.

As per claim 7, Crosskey failed to teach, A method according to claim 1 including communicating data generated by step (a) to a network accounting object controlled by a network operator. Ruth and Mills teaches, communicating data generated by step (a) to a network accounting object controlled by a network operator (page 40, col. 1, paragraph 1-col. 2, paragraph 3).

As per claim 8, Crosskey failed to teach, A method according to claim 7, including communicating to the network accounting object a usage charge calculated from the measurement data. Ruth and Mills teaches, communicating to the network

accounting object a usage charge calculated from the measurement data (page 40, col.

1, paragraphs 4 and 5, lines 1-6).

As per claim 9, Crosskey failed to teach, A method according to claim 1,

including communicating measurement data to a system remote from the customer

terminal. Ruth and Mills teach communicating measurement data to a system remote

from the customer terminal (page 39, paragraphs 1-4, page 41, Table 1, and col. 1,

paragraph 5). It would have been obvious to one having ordinary skill in the art at the

time of the invention to incorporate the teachings of Ruth and Mills of communicating

data generated by step (a) to a network accounting object controlled by a network

operator, communicating to the network accounting object a usage charge calculated

from the measurement data, and measurement data to a system remote from the

customer terminal and to modify Crosskey because such a modification would allow

Crosskey to have the ability to perform accounting to calculate the measurement of

data and the usage by using a flat rate or a host traffic matrix for billing purposes.

As per claim 10, Crosskey teaches, A method according to claim 7, wherein

sampling the usage is carried out by a network operator and comprises sampling part

only of the traffic communicated between a customer terminal and the network and, for

the sampled traffic, further comprises comparing the sampled network usage with data

communicated from the customer terminal to the network accounting object and thereby

detecting any discrepancy (col. 2, lines 8-51, col. 3, lines 4-14, and col. 9, lines 1-16).

As per claim 11, Crosskey failed to teach, A method according to claim 1 in

which a network accounting object is configurable to receive data from a measurement

object controlled by a network operator or from a customer terminal. Ruth and Mills

teaches, a network accounting object is configurable to receive data from a

measurement object controlled by a network operator or from a customer terminal (page

39, col. 2, paragraph 6-col. 1, page 40, paragraph 4).

As per claim 12, Crosskey and Ruth and Mills failed to teach, A method

according to claim 11, in which a customer accounting object associated with the

customer terminal is configurable to direct data to the network accounting object. It

would have been obvious to one having ordinary skill in the art at the time the invention

was made to have a customer accounting object associated with the customer terminal

is configurable to direct data to the network accounting object and to modify in Crosskey

because such a modification would allow Crosskey to have the capability for the

accounting object from the customer to send the accounting information to the network

for processing.

As per claim 13, Crosskey failed to teach, A method according to claim 11,

including switching the network accounting object from a first configuration in which data

is received from the said measurement object and another configuration in which data is

received from the customer terminal in response to a control signal received at the

network accounting object. Ruth and Mills teaches, switching the network accounting

object from a first configuration in which data is received from the said measurement

object and another configuration in which data is received from the customer terminal in

response to a control signal received at the network accounting object (col. 1, page 40,

paragraphs 4 and 5).

As per claim 14, Cross key failed to teach, A method according to claim 1 further comprising communicating a tariff to each of the customer terminals, and calculating at each of the terminals from the tariff and from accounting data the network usage charge. Ruth and Mills teaches, communicating a tariff to each of the customer terminals, and calculating at each of the terminals from the tariff and from accounting data the network usage charge (page 40, col. 1, paragraphs 1-3 and col. 2, paragraphs 1-3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to communicate a tariff to each of the customer terminals, and calculating at each of the terminals from the tariff and from accounting data the network usage charge. Ruth and Mills teaches, communicating a tariff to each of the customer terminals, and calculating at each of the terminals from the tariff and from accounting data the network usage charge and to modify in Crosskey because such a modification would allow Crosskey to apply tariffs to accounting elements gathered in the organizations database which reflect the organization's policies.

As per claim 15, Crosskey teaches, A method according to claim 1 in which the communications network is a federated data network comprising a plurality of network domains (col. 8, lines 5-52)

As per claim 16, Crosskey teaches, A method according to claim 15 including communicating traffic between a customer terminal and a first network domain connected to the customer terminal (col. 7, lines 15-67); further communicating the said traffic between the first network domain and a second network domain connected to the first network domain (col. 7, line 15-col. 8, line 52); communicating network usage data

from the customer terminal to a first network accounting object in the first domain (col. 5, line 64-col. 6, line 7); and communicating accounting data between the first network accounting object and a second network accounting object in the second domain (col. 6, line 64-col. 8, line 52).

As per claim 17, Crosskey failed to teach, A method according to claim 16, including determining from a current routing table in the first network domain the identity of a second domain, which second domain is communicating data with the customer terminal via the first network domain, and communicating network usage data for the customer terminal to the second domain identified by the current routing table. Ruth and Mills teaches, determining from a current routing table in the first network domain the identity of a second domain, which second domain is communicating data with the customer terminal via the first network domain, and communicating network usage data for the customer terminal to the second domain identified by the current routing table (page 39, col. 1, paragraphs 1 and 2).

As per claim 18, Crosskey failed to each, A method according to claim 1 in which the step of measuring includes counting the quantity of data communicated in packets transmitted between the customer terminal and the communications network. Ruth and Mills teaches, measuring includes counting the quantity of data communicated in packets transmitted between the customer terminal and the communications network (page 38, col. 2, paragraph 7, page 39, col. 1, paragraphs 1-3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Ruth and Mills of determining from a current routing table in

the first network domain the identity of a second domain, which second domain is

communicating data with the customer terminal via the first network domain, and

communicating network usage data for the customer terminal to the second domain

identified by the current routing table and measuring to include counting the quantity of

data communicated in packets transmitted between the customer terminal and the

communications network and to modify in Crosskey because such a modification would

allow Crosskey to have the usage measured in packets transmitted and received during

a call with identifiable connections being determined by the number of packets sent

between two endpoints for a given period.

16.   Claims 19 – 25, 30, 32, 33, 39-45 are rejected under 35 U.S.C. 103(a) as being

unpatentable over (US 6,035,281) Crosskey et al, hereafter Crosskey in view of Dr.

Gregory Ruth and Cyndi Mills, hereafter Ruth and Mills and further in view of (US

5,978,456) Takeuchi et al, hereafter Takeuchi.

As per claim 19, Crosskey failed to teach, A method according to claim 18,

including measuring both packets received by the customer terminal and packets sent

by the customer terminal. Ruth and Mills teaches, measuring both packets received by

the customer terminal and packets sent by the customer terminal (page 38, col. 2,

paragraph 7and page 39, col. 1, paragraphs 1-3).

As per claim 20, Crosskey and Ruth and Mills failed to teach, A method

according to claim 1, in which a payment for network usage is made to a third-party

clearer. It would have been obvious to one having ordinary skill in the art at the time the

invention was made to have a payment for network usage made to a third-party clearer

and to modify in Crosskey because such a modification would allow Crosskey to have a bank or institution to settle the payment for the usage charges on the network.

As per claim 21, Crosskey and Ruth and Mills failed to teach, A method according to claim 1, including automatically varying a tariff for network usage in dependence on loading of the network, and calculating a charge for network usage by applying the tariff to the measurement data. Takeuchi teaches, including automatically varying a tariff for network usage in dependence on loading of the network, and calculating a charge for network usage by applying the tariff to the measurement data (col. 2, lines 45-67 – (charge/tariff), col. 3, lines 36-67, and col. 4, lines 1-15 – performing a calculation). It would have been obvious to one having ordinary skill in the art at the time the invention was made to automatically vary a tariff for network usage in dependence on loading of the network, and calculating a charge fro network usage by applying the tariff to the measurement data and to modify in Ball because such a modification would allow Ball to determine a charging price according to the price (tariff) information obtained as a response to an inquire using parameters of a location on a relay network owned by a charging network as another communication network for charging a price (tariff) for usage.

As per claim 22, Crosskey failed to teach, A method according to claim 1, including transmitting packets on the network with a plurality of different classes of service. Ruth and Mills teach transmitting packets on the network with a plurality of different classes of service (page 39, col. 1, paragraph 1 and paragraph 5 and col. 2, paragraph 1).

As per claim 23, Crosskey failed to teach, A method according to claim 22, including passing the said packets through a packet router, and in the packet router determining the classes of service applicable to the packets, and scheduling packets differently depending on the respective class of service. Ruth and Mills teach, passing the said packets through a packet router, and in the packet router determining the classes of service applicable to the packets, and scheduling packets differently depending on the respective class of service (page 39, col. 2, paragraph 3-5).

As per claim 24, Crosskey failed to teach, A method according to claim 23, in which a step of policing the classification of packets to determine the eligibility of a packet for a respective class of service is carried out at a location remote from the router. Ruth and Mills teaches, policing the classification of packets to determine the eligibility of a packet for a respective class of service is carried out at a location remote from the router (page 39, col. 2, paragraph 6, page 40, col. 1, lines 1 and 2 and paragraphs 4 and 5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Ruth and Mills of transmitting packets on the network with a plurality of different classes of service and passing the said packets through a packet router, and in the packet router determining the classes of service applicable to the packets, and scheduling packets differently depending on the respective class of service and to modify in Crosskey because such a modification would allow Crosskey to have the traffic on the network metered at a coarser granularity by interface with fewer accounting records and less processing overhead.

As per claims 25 and 30, Crosskey, Ruth and Mills, and Takeuchi failed to teach, A method in which the step of policing is carried out at a customer terminal and including penalizing a customer when a discrepancy is detected. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a step with policing carried out at a customer terminal and including penalizing a customer when a discrepancy is detected and to modify in Crosskey because such a modification would allow Crosskey to keep track of the customer usage at the customer terminal and to charge the customer a fee if the usage is not correct especially in cases of fraudulent use of the network.

As per claim 32, Crosskey, Ruth and Mills failed to teach, A communications network arranged to operate by a method according to claim 1 and A customer terminal arranged to operate by a method according to claim 1. Takeuchi teaches, A communications network arranged to operate by a method according to claim 1 (col. 5, line 50-col. 6, line 64) and A customer terminal arranged to operate by a method according to claim 1 (col. 12, lines 18-64). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a communications network and a customer terminal arranged to operate by a method according to claim 1 and to modify in Crosskey because such a modification would allow Crosskey to have the capability of receiving and sending specified contents of a terminal database owned by the communications network and the storing location of a terminal and a charging unit price being determined by a reference to a table of the communication network for storing the charging unit prices using the receiving location as parameters.

As per claim 39, Crosskey failed to teach, A method according to claim 25, in which the policing by the customer is randomly audited concurrently with, or subsequently to, the respective data flow. Ruth and Mills teaches, policing by the customer is randomly audited concurrently with, or subsequently to, the respective data flow (page 39, col. 2, paragraph 4).

As per claims 40 and 41, Crosskey failed to teach, wherein the packets are data packets. Ruth and Mills teach, wherein the packets are data packets (col. 2, page 38, paragraph 7).

As per claims 42 and 43, Crosskey failed to teach, wherein the packets are IP packets. Ruth and Mills teach, wherein the packets are IP packets (col. 1, page 39, paragraphs 3 and 4).

As per claims 44 and 45, Crosskey failed to teach, wherein the packets are message packets. Ruth and Mills teach, wherein the packets are message packets (col. 1, page 39, paragraph 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Ruth and Mills of the policing by the customer being randomly audited concurrently with, or subsequently to, the respective data flow, the packets being data packets, the packets are IP packets. Ruth and Mills teach, wherein the packets being IP packets, and the packets being message packets and to modify in Crosskey because such a modification would allow Crosskey to determine the number of packets sent between two endpoints and to have internet protocol packets and message packets. However sometimes the

Network will begin dropping message packets if there are to many message packets

coming through the Network at one time.

Conclusion

17.   The prior art made of record and not relied upon is considered pertinent to

Applicants' disclosure.

Reeder (US 5,852,812) disclosed a billing system for a network.

Mechling et al (US 5,873,030) disclosed telecommunications billing.

Rieken et al (US 6,009,154) disclosed flexible rate charging for existing

connections.

Bowman, C. Douglas, "Innovative rates: Four customers, four solutions"

disclosed rate solutions bases on a given set of tariff assumptions.

Inquiries

18.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Ella Colbert whose telephone number is 571-272-6741.

The examiner can normally be reached on Tuesday-Thursday, 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Vincent Millin can be reached on 571-272-6747. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

June 10, 2006

ELLA COLBERT
PRIMARY EXAMINER